

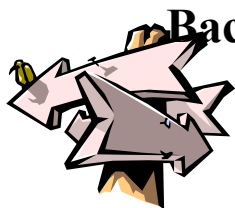


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Off-Site Contaminated Groundwater Fact Sheet

Sherwood Medical Industries Superfund Site
DeLand, Florida

November 2002



Background

The Sherwood Medical Industries Superfund Site is located approximately three miles northeast of DeLand, Florida and covers approximately 42 acres. The Site was listed on the National Priorities List (NPL) in 1983 and underwent numerous investigations through 1991.

Since 1959, the Site has been used for the manufacture of medical supplies, primarily hypodermic needles. Operations include grinding, cleaning, hub processing, and de-coring of stainless steel and aluminum parts used to manufacture hypodermic needles.



While the Sherwood Site was sold to Tyco Healthcare Group in 1998, Wyeth retained responsibility for the Superfund environmental liability.

The Tyco Healthcare Kendall facility pumps approximately 175,000 gallons/day from the underlying Floridian Aquifer for industrial needs such as cleaning, manufacturing, and cooling/evaporation processes. Several manufacturing steps result in wastewater that is treated at an onsite industrial treatment plant before being discharged to the City of Deland sewer system.

Groundwater Contamination

Environmental studies in the 1980s/early 1990s determined that groundwater at the Site was contaminated with volatile organic compounds (VOCs) from former process wastes (e.g., tetrachloroethene (PCE), trichloroethene (TCE)).

The 1980s/early 1990s work showed the surficial or shallow aquifer (i.e., the aquifer from the land surface down to about 55 feet below land surface (bls)) to be contaminated onsite and just to the east of Kepler Road. The shallow aquifer is underlain by a four to eight foot thick clay. Below the clay lens is a layer of sand and shell to a depth of approximately 100 feet. The Floridan Aquifer begins at about 100 feet bls with the occurrence of limestone. Sampling from the 1980s/early 1990s found that the onsite Floridan Aquifer was also contaminated with VOCs. However, Floridan monitoring wells located to the west and east of the Site indicated that the Floridan groundwater contamination had not migrated offsite.

Groundwater Cleanup/Remedy

On March 27, 1991, EPA selected an interim remedy to prevent the migration of contaminated groundwater off site. The

remedy included the installation of a system of onsite recovery wells in the surficial aquifer, installation of an onsite air stripper to treat recovered groundwater, and discharge of treated groundwater into Lake Miller.

The Consent Decree between EPA and Sherwood Medical was entered on February 3, 1992, and the remediation system was constructed and became operational in the summer of 1992. Following completion of the full site investigation, EPA selected a final remedy on October 8, 1992, which included the following elements: continued operation of the surficial aquifer pump and



treat system; continued operation of the Floridan Aquifer production well and associated treatment system; remediation or disposal of excavated soils (as necessary)

which exceed performance criteria; implementation of a long-term groundwater monitoring program (including residential wells); and establishment of institutional controls to limit use of and access to the Site. An amendment to the Consent Decree to address these additional requirements was entered on September 23, 1993.

Analysis of Groundwater Cleanup

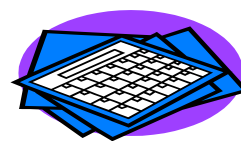
EPA completed a Five-Year Review of the cleanup in 1999. Five-Year Reviews are conducted to ensure the remedy continues to be protective. The Five-Year Review Report concluded that the performance standards for the remedy remain protective, but the review documented deficiencies in operation & maintenance (O&M) and identified remedial measures to address the deficiencies.

As a result of the Five-Year Review process, a revised O&M Plan has been developed and

submitted to EPA, and a work plan to collect additional data needed for the next Five-Year Review was developed and submitted to EPA. The work plan included further groundwater assessment both onsite (i.e., the Tyco Healthcare Kendall Plant) and offsite (i.e., east and southeast of the Tyco Healthcare Kendall Plant). The plan was approved by EPA on December 10, 2001.

Status of the Current Off-Site Groundwater Assessment

Although a report has not yet been generated for the offsite groundwater assessment which began in February 2002, some of the main offsite assessment activities and results include the following:



Surficial Aquifer

- * Over 150 groundwater samples at 75 locations have been collected from the shallow aquifer via Geoprobe technology and field analyzed for VOCs.
- * Three new shallow aquifer monitoring wells were installed just to the east of Kepler Road and an additional shallow well installed south of the property.

VOCs have been detected in the shallow aquifer and have been tracked to the edge of Lake Cypress (see Figure 1).

Floridan Aquifer

- * Two new Floridan Aquifer monitoring wells were installed just to the east of Kepler Road to replace private residential wells used as monitoring points. These private wells were taken out of service when water became available from the City of Deland. There are now five offsite

Floridan Aquifer monitoring wells just to the east of Kepler Road.

VOCs have not been detected in the Floridan Aquifer by the offsite monitoring network during this study. Groundwater impacts to the Floridan Aquifer occur in a limited area beneath the plant and are held on-site by the pumping of the plant's industrial process water supply well (see Figure 2).

Next Steps



- * Complete the remaining onsite assessment work on the Floridan Aquifer. This work is scheduled to begin in December 2002.
- * Once the December onsite assessment work is completed, a report will be generated explaining the onsite and offsite assessment activities performed to date. The report will also include recommendations for any needed further actions (e.g., additional assessment, modification to the groundwater cleanup system).

Contacts



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Local Document Repository

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**Site Background
Offsite Contamination
Next Steps
Contact Information**